

AMENDMENTS TO THE CLAIMS

- 1-2. (canceled)
3. (currently amended) A method of separating metal powder from a slurry of liquid metal and metal powder and salt, comprising introducing the slurry into a first vessel operated in an inert and/or vacuum environment for separation of liquid metal from the metal powder and salt leaving principally salt and metal powder substantially free of liquid metal, transferring the salt and metal powder substantially free of liquid metal to a second vessel operated in an inert environment, and thereafter treating the salt and metal powder to produce passivated metal powder substantially free of salt and liquid metal ~~The method of claim 1,~~ wherein the salt and metal powder are crushed to form clumps having diameters less than about five centimeters prior to passivation.
- 4-10. (canceled)
11. (currently amended) The method of ~~claim 1~~ claim 3, wherein passivation occurs on a conveyor.
12. (original) The method of claim 11, wherein the metal powder is continuously cooled and passivated.
13. (canceled)
14. (currently amended) A method of separating metal powder from a slurry of liquid metal and metal powder and salt formed by introducing a metal halide vapor subsurface of a liquid metal causing an exothermic reaction producing salt and metal powder with the liquid metal being present in excess of the stoichiometric amount required, the method comprising

introducing the slurry into a first vessel operated in an inert and/or vacuum environment for filtration and vaporization of liquid metal from the metal powder and salt leaving principally salt and metal powder substantially free of liquid metal, transferring the liquid metal vapor to a condenser operated in an inert environment to convert the liquid metal vapor to a liquid to be recycled for production of additional metal powder, transferring the salt and metal powder substantially free of liquid metal to a second vessel operated in an inert environment, and thereafter treating the salt and metal powder to produce passivated metal powder substantially free of salt and liquid metal.

15. (original) The method of claim 14, wherein the slurry is heated in the first vessel by contact with a heat exchanger internal to the first vessel having heat exchange fluid pumped therethrough.

16. (original) The method of claim 14, wherein the liquid metal vapor from the first vessel is cooled by contact with heat exchanger internal to the condenser having a heat exchange fluid pumped therethrough.

17. (original) The method of claim 14, wherein the first vessel is heated by both an internal and an external heat exchanger.

18. (original) The method of claim 14, wherein the slurry is introduced into the interior of a candle filter in the first vessel with liquid metal flowing through the candle filter and out of the first vessel.

19. (original) The method of claim 14, wherein the inert environment for the first and second vessels is an argon atmosphere.

20. (original) The method of claim 19, wherein the condenser is operated in an argon atmosphere.

21. (original) The method of claim 14, wherein the environments of the first and second vessels are protected from contamination by oxygen during the production of metal powder substantially free of salt and liquid metal.

22-32. (canceled)